

Garra mullya were collected mainly from the streams adjacent to the reservoir. January 25, 1999

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18. NEW RECORDS OF FISHES FROM THE WESTERN GHATS OF MAHARASHTRA

During studies on fish diversity in the Western Ghats streams and rivers in Maharashtra under the Western Ghats Biodiversity Programme, we collected *Silurus wynaadensis*, *Puntius bimaculatus*, *Puntius conchoni* and *Hypselobarbus dubius* from various streams and rivers. Recently, we recorded *Salmostoma sardinella* from Mondai stream and *Stigmatogobius oligactis* from Dhom reservoir as new records from Maharashtra and India respectively (Arunachalam *et al.*, 1999a,b). However, on further studies, we found four more species as new records from Maharashtra.

The above-mentioned fish species have not been recorded by earlier workers: Day (1868), Hora and Misra (1942), Suter (1944), Kulkarni

and Ranade (1974), Jayaram (1981, 1991), Talwar and Jhingran (1991), Ghate and Pawar (1992) and Menon (1992).

Silurus wynaadensis Day

This species was originally described by Day (1873, 1878) in Wynaad, Kerala state (erstwhile Travancore). We collected one specimen from Mondai stream, which arises in the Mandhardevi hill ranges and meets the River Neerar. The fish was collected 1 km from Shirrai in Satara district. Bhimachar and Rau (1941) recorded this species from Jagger valley in Karnataka in the Cauvery and Tungabhadra river systems. Rajan (1955) reported this species from

the headwaters of the Bhavani river (Cauvery river basin) and Menon (1992) in Cauvery drainage at Virthy in Wynaad, Kerala State. Recently it is reported from the headwaters of Chandragiri, a west flowing river in Kasargod, Kerala (Gopi 1996), and by Arunachalam (1998) from Kallar river in south Kerala.

Description: D-4 P-i/10 V-i/7 A-i/56.

Body elongate and compressed. Head length 5 times in standard length. Upper jaw longer than lower jaw. Barbels three pairs; maxillary barbels extend over pectoral fins but do not reach base of pelvic fins; mandibular barbels two pairs. Eye diameter 5 times in head length.

Puntius bimaculatus (Bleeker)

This species was originally described by Bleeker (1844) from Ceylon. We collected one specimen from Phansad Wildlife Sanctuary, Murud Taluka, Raigad district. Talwar and Jhingran (1991) considered its geographical distribution from Sri Lanka only. Pethiyagoda (1991) described this species and its distribution in Sri Lanka. Menon and Rema Devi (1992) described this species from Kalakkad Wildlife Sanctuary, Tirunelveli district, Tamil Nadu. Arunachalam (1997) recorded its widest distribution in riverine wetlands of Tamiraparani. Rema Devi *et al.* (1997) also recorded it from Tamiraparani river system. We have recorded *P. bimaculatus* in the Western Ghats from Tamiraparani river, Gandana river, Rama Nadhi, Hanuman Nadhi, Karuppan Nadhi, New Falls and Moyar river (Nilgiri Biosphere Reserve) in Tamil Nadu, Hemavathi and Ekatchi rivers of south Karnataka (Arunachalam 1998) except Kerala.

Description: D-ii/10 P-i/10 V-i/6 A-i/5.

Body elongate, more convex dorsally than ventrally, depth 4 times in standard length. Head 3.8 times in standard length. Mouth small. Barbels one pair maxillary only, shorter than eye diameter. Dorsal fin inserted equidistant between

tip of snout and base of caudal fin. Eye diameter 3 times in head length. Lateral line complete with 24 scales.

Hypselobarbus dubius (Day)

Originally described by Day (1867) from Bhavani river, Nilgiri hills, Tamil Nadu. We collected 2 specimens from Khal river, which originates from Bhira in Raigad district, Maharashtra. Recorded by Rajan (1955) from the headwaters of Bhavani river, south India. Johnsingh and Wickram (1987) recorded it from Mundanthurai Wildlife Sanctuary, Tamil Nadu. Recently it was recorded by Rema Devi *et al.* (1997) and Arunachalam (1998) from the Tamiraparani river system. This large barb is abundant in Bhavani river, Nilgiri hills, Tamil Nadu, and in the Tamiraparani river system. This species forms a major fishery in the Cauvery and Tamiraparani river systems.

Description: D-iii/9 P-i/14-15 V-i/8-9 A-ii-iii.5.

Body robust, its depth about four times in standard length. Eye moderate, diameter about 4.7 to 5 times in head length. Mouth subinferior, barbels two, rather short pairs. Dorsal fin inserted slightly nearer to snout tip than to base of caudal fin. Lateral line complete with 44 scales.

Puntius conchonius (Hamilton-Buchanan)

This species was originally described by Hamilton-Buchanan from ponds, and Kosi and Ami rivers of northeast Bengal. We collected 5 specimens from Dhom reservoir, a man-made impoundment of the Krishna and Vaitali rivers. Singh *et al.* (1987) recorded it from Garhwal Himalaya, Barman (1994) from Tripura, northeast India, and Johal *et al.* (1993) from Rajasthan. Recently it was reported by Arunachalam (1998) from Hemavathi and Ekatchi rivers, Western Ghats of south Karnataka.

Description: D-iii/7-8 P-i/14-16 V-i/8 A-ii-iii/5.

Body deep and compressed, its depth 2.8 to 3.5 times in standard length. Head 3.7 to 4.5 times in standard length. Mouth moderate; no barbels. Dorsal fin inserted equidistant between tip of snout and base of caudal fin, its unbranched ray osseous, moderately strong and serrated. Lateral line incomplete, ceases after 10th to 13th scale; 24-26 scales in longitudinal series.

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19. MANTID FAUNA OF SANJAY GANDHI NATIONAL PARK, MUMBAI, WITH SOME NEW RECORDS FOR MAHARASHTRA STATE

The Sanjay Gandhi National Park (SGNP) lies in the northern region of the Western Ghats, in a general north-south direction. It has a south Indian moist-deciduous forest type with a mean annual rainfall of 2,600 mm. The Park includes various habitats like mixed moist-deciduous forest with patches of pure bamboo, teak dominated forest including teak plantation, mangrove forest along the creek and western subtropical hill forest. Because of the variety of habitats, it is rich in insect fauna. However, very little is known about the insect biodiversity of the area. The mantid fauna of the Park and its environs is reported here.

Out of 162 species found in India (Mukherjee *et al.* 1995), the present study records 11 species from the Sanjay Gandhi National Park (SGNP), Mumbai, Maharashtra. The paper also provides measurements i.e. Body length (BL), Pronotum (PN) and Forewing (FW) of male (M) or female (F) of some species not recorded earlier.

The collection was made from 1995 onwards. The specimens were collected with nets. Mantids attracted to light at night were also collected. Only a representative collection was made; known species were caught and released after confirming the identification.

The specimens so collected were identified according to Mukherjee *et al.* (1995). Some identifications were confirmed by Dr. T.K. Mukherjee.

The SGNP has 11 species belonging to 4 out of the 6 families of mantids found in India. One specimen collected earlier from Mumbai was identified as a species of *Empusa*, while another which was brought to us a few years ago from Pune by a student, was identified as *Ambivia popa* Stal. Some species like *Gongylus gongyloides* (Linn.) and *Creoboter gemmatus* (Stoll) prefer to sit on flowers of *Leea*, which attract hundreds of butterflies and other insects. *Hierodula* spp. prefer green vegetation, while *Humbertiella* spp. are found on the bark of trees.

All measurements are in mm.

A. **Family:** Amorphoscelidae Stal.

[1] *Amorphosclerosis annulicornis* Stal.

Collection site: CEC Centre, Goregaon (E) adjacent to SGNP. 20.vi.1998.

Measurements: F: BL-17; PN-3; FW-14.

Distribution: INDIA: Assam, Bihar, Daman & Diu, Himachal Pradesh, Kerala, Meghalaya, Tamil Nadu, West Bengal. New record for Maharashtra.